



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/752,626
Filing Date: January 07, 2004
Appellant(s): SHAH ET AL.

16 April 2008
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to the revised Appeal Brief filed 30 January 2008, in response to the Notice of Non-Compliant Appeal Brief mailed 2 January 2008, and appealing the Office action mailed 13 December 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

U.S. Patent No. 4,811,897 (Kobayshi et al.)

U.S. Patent No. 5,323,385 (Jurewicz et al.)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

In view of Appellant's arguments, the rejections of claims 3, 6, 12-15, and 18 have been withdrawn. The rejections of claims 1, 2, 4, 5, 7-11, 16, 17, and 19-29 are set forth below.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, 8, 9, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al.

Kobayashi discloses a thermostat 14, indoor controller 101, 104 and outdoor controller 17 connected by a serial data bus 106 in which the indoor controller is directly wired to a damper control 9A to provide a heating function to air within an environment (see for example column 4, lines 7-8). The Examiner notes that the control of airflow of heated air provided by dampers 9 is a "heating function" for the air being passed into the environment. Kobayashi further discloses outdoor unit 17 having its own control 17D which communicates via bus 106 which also communicates with controller 14A in thermostat 14 (Figure 5). Kobayashi further discloses a peripheral device (sensor 9b) being wired to controller 104. (As shown in Appellant's claim 15, Appellant does consider sensors to be valid peripheral devices).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3744

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4, 10, 11, 16, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al.

Kobayashi discloses the invention substantially as claimed. Kobayashi discloses two wires for providing power to the indoor and outdoor controllers and two wires for providing data between the indoor controller, outdoor controller and thermostat (see col. 5, line 63 to col. 6, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Kobayashi such that four wires were used to connect all the controllers of the system rather than just some of the controllers since the concept of using four wires interconnecting some of the controllers is clearly shown on Figure 6. The provision of the four wires as distinct and separate wires is considered to have been an obvious matter of engineering design based upon the particular installation since the operation of the data bus will not be substantially changed.

Claims 23-24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al as applied to claim 1 above, and further in view of official notice. Official notice

Art Unit: 3744

is taken that HVAC systems that have a furnace and fan/heater unit or an air conditioner and heat pump were conventional at the time the invention was made. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Kobayashi such that the HVAC system was a furnace and fan/heater unit or an air conditioner and heat pump.

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al as applied to claim 10 above, and further in view of official notice as applied to claim 23 above.

Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. and further in view of Jurewicz et al.

Jurewicz teaches the use of a serial communication bus to connect remoter sensors to a control system (see col. 3, lines 23-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Kobayashi such that it included the use of the serial communication bus to connect remote sensors to a control system in view of the teachings of Jurewicz.

(10) Response to Argument

Rejection Under 35 USC 102 Over Kobayashi et al.

Claim 1

Applicant argues that Kobayashi et al. does not teach the HVAC unit being operable to provide a heating function to air within an environment. The Examiner respectfully disagrees. See for example column 4, lines 7-8 and 20; column 8, line 13; and column 13, lines 16-18 regarding a heating/heat pump function. The Examiner further notes that the control of airflow of heated air provided by dampers 9 is a “heating function” for the air being passed into the environment.

Claim 2

Applicant argues that Kobayashi et al. fails to disclose an outdoor HVAC unit provided with its own control and also communicating with the central controller via the same data bus. Again, the Examiner disagrees. Figure 5 shows outdoor unit 17 having its own control 17D which communicates via bus 106 which also communicates with controller 14A in thermostat 14.

Claim 5

Applicant argues that Kobayashi et al. does not teach a peripheral unit hard wired to the indoor controller. However, Kobayashi et al. does teach sensor 9b being wired to controller 104. As shown in Applicant’s claim 15, Applicant does consider sensors to be valid peripheral units. Accordingly, claim 5 is properly disclosed by Kobayashi et al.

Art Unit: 3744

Claim 22

Applicant again argues that Kobayashi et al. fail to teach a heating function. See discussion above regarding claim 1.

Rejections of Claims 23, 25, and 27 over Kobayashi et al. and Official Notice

Applicant argues that Kobayashi et al. fails to teach a furnace or a fan/heater unit. However, these features are clearly disclosed at column 13, lines 16-18.

Rejection of Claims 24, 26, 28, and 29 Over Kobayashi and Official Notice

Applicant argues that Kobayashi et al. fails to teach the outdoor unit being either an air conditioner or a heat pump. Similarly, these features are clearly disclosed at column 13, lines 16-18.

Rejection of Claims 4, 10-11, 16-17, and 19-21 Over Kobayashi et al.

Applicant argues again that the outdoor unit does not have its own control communicating with the central control. See discussion above of claim 2 regarding this issue. Applicant also argues that it would not have been obvious to apply 4 wires as shown by Kobayashi et al. in Figure 6 throughout the communication network. Applicant has not shown how the function of the data bus would be changed or improved in any way by applying this feature throughout the system. Accordingly, the rejection based on simple engineering design choice stands.

Claim 11

See discussion of similar claim 5, above.

Claim 16

Figure 6 shows outdoor controller 17 communicating serially with controllers 101, 104, and 14.

The Rejection of Claims 3 and 12 over Kobayashi et al. in view of Otsuka et al.

As per claim 3, the issue of a peripheral unit has already been addressed above regarding claim 5. As per claim 12, the Examiner accepts Applicant's argument that it would not have been obvious to one of ordinary skill in the art to connect a humidifier in the manner recited in the claim. Accordingly, this rejection is withdrawn.

The Rejection of Claims 6 and 18

The Examiner accepts Applicant's arguments. Accordingly, the rejection of these claims is withdrawn.

Art Unit: 3744

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Marc Norman

/Dr. Marc E. Norman/
Primary Examiner, Art Unit 3744

Conferees:

Cheryl Tyler

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit 3744

Marc Jimenez

/Marc Jimenez/
TQAS TC 3700